

# Searching for GRB Counterparts to Gravitational-wave Events from the Third Gravitational Wave Observing Run with Fermi-GBM and Swift-BAT

*Wednesday 12 October 2022 12:15 (15 minutes)*

We present Fermi Gamma-ray Burst Monitor (Fermi-GBM) and Swift Burst Alert Telescope (Swift-BAT) observations of gravitational-wave (GW) events detected during the third LIGO/Virgo/KAGRA Collaboration observing run (O3). Using Fermi-GBM on-board triggers as well as sub-threshold searches in both Fermi-GBM and Swift-BAT ground data, we search for coincident gamma-ray transients associated with the GW events. No new joint events beyond GRB 170817A and GW170817 were found. We therefore calculate flux upper limits for the associated gamma-ray luminosity of each GW event. Using the lack of electromagnetic (EM) emission from binary black hole (BBH) mergers, we begin to constrain theoretical models of any such emission.

## **Track**

GRBs

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